New and Little Known Micropezidae from the Western United States[1]

(Diptera)

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Two new species and the previously unknown male of the third are being described here in order to include them in a paper to be submitted for publication in the California Insect Survey Series.

Compsobata (Trilophyrobata) jamesi Merritt, new species

(Fig. 1)

MALE.—Head mainly black; frontale yellow immediately above bases of antennae; narrow parafrontal, whitish yellow posterior to base of antenna, gradually darkening to black on posterior half; face and bucca pale yellow; posterior oral margin brownish; parencephalon and occiput black with narrow oral margin brownish; proboscis brownish; palpus yellow; antenna yellow, arista black, sparsely pubescent basally. Entire head covered with cinereous pollen; mesofrons appearing velvety black with ocelli standing out against dark background; silvery reflection on epicephalon adjacent to eye; yellowish pile on face, proboscis and occipital region. Thorax wholly black; largely cinereous pollinose, most of pteropleuron, and mesonotum except broad anterior and lateral and narrower prescutellar margins, polished and shining; pile on thorax yellowish, bristles black. Halter yellowish white. Wing yellowish hyaline; veins pale yellow. Posterior cell open. Legs chiefly yellow; middle and hind coxae brownish black; tarsal claws black at tip. Coxae cinereous-pollinose, legs otherwise subshining. Abdomen black except fulcrum and apical three-fourths of claspers, which are yellow; genital structures pale brown. First abdominal tergum cinereous pollinose, second only basally, sixth, seventh, and ninth sparsely cinereous. Hairs on terga yellowish. Claspers of male (Fig. 1) arising from fourth and fifth abdominal sterna; terminal lobe partially flattened and somewhat reniform with caudal lobe; fulcrum distinctly bilobed, distance between lobes subequal to width of lobe. Hairs on claspers yellow. Length 6.3–6.6 mm (Holotype—6.5 mm).

FEMALE.—Antenna tawny; ovipositor cylindrical and broad, flattened apically, not auriculated at base. All terga including ovipositor shiny. Otherwise, except sexually, like male. Length 5.7 mm excluding ovipositor, ovipositor 1.4 mm.

Holotype male, NAHCOTTA, PACIFIC COUNTY, WASHINGTON, 14 June 1953 (Trevor Kincaid). Allotype, same data but collected on 31 May 1953. (Type and allotype deposited in the Maurice T. James Entomological Collection at Washington State University.) Paratypes: three

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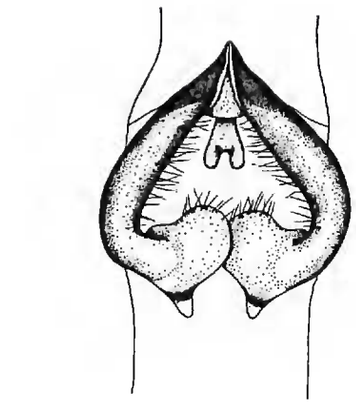

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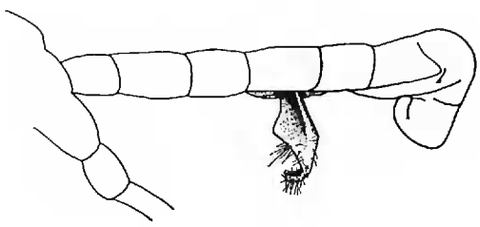

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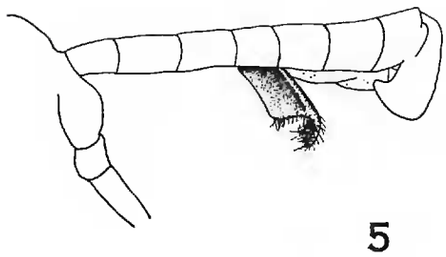

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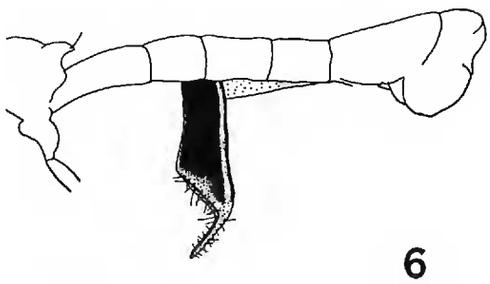

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FIG. 1.—*Compsobata* (*Trilophyrobata*) *jamesi* Merritt, n. sp., ventral view of claspers. FIG. 2.—*Micropeza* (*Micropeza*) *unca* Merritt, n. sp., dorsal view of head, showing color pattern. FIG. 3.—*Micropeza* (*Micropeza*) *setaventris* Cresson, dorsal view of head, showing color pattern. FIG. 4.—*Micropeza* (*Micropeza*) *unca* Merritt, n. sp., lateral view of male abdomen, showing claspers. FIG. 5.—*Micropeza* (*Micropeza*) *setaventris* Cresson, lateral view of male abdomen, showing claspers. FIG. 6.—*Micropeza* (*Micropeza*) *atra* Cresson, lateral view of male abdomen, showing claspers. FIG. 7.—Subfamily Micropezinae, dorsal view of generalized ovipositor.

males, same data as holotype except 10 May 1953, 20 May 1954, and 23 May 1954; one male, Marietta, Whatcom Co., 18 June 1944 (R. D. Shenefelt). One in California Academy of Sciences, one in United States National Museum, and two in M. T. James Entomological Collection at Washington State University. Two additional males and one female from the type locality were not included in the paratype series because of imperfections.

DISTRIBUTION.—This species has been found only in the coastal areas of Washington.

DISCUSSION.—The males of *C. jamesi* can be separated from other males by a U-shaped fulcrum with two distinct lobes (Fig. 1). I examined only one female, the allotype. In this specimen the ovipositor was deformed. It appears to be of the type of *Compsobata mima* (Hennig), subcylindrical and not auriculate basally. The pollinose mesopleura ($AEPS_2$) will distinguish both sexes of *C. jamesi* from those of *C. mima.*

Micropeza (Micropeza) unca Merritt, new species

(Figs. 2–5)

MALE.—Head black and yellow; narrow parafrontal yellow, becoming black upon reaching epicephalon; latter black with dark inner margins gently bowed toward eye (Fig. 2); frontale not differentiated; mesofrons black; ocellar spot black except adjacent narrow margins which are yellow; face and bucca pale yellow to almost white; parencephalon and occiput black with oral margin pale yellow; proboscis pale yellow; palpus dark brown; antenna black, arista white, brownish at extreme base, sparsely pubescent. Head shining and polished; mouth and occipital region with some black and yellow hairs; inner and outer vertical bristles black. Thorax black and yellow with some variation in the pleura; mesonotum black except for large orange to yellow notopleural stripe and supraalar margin which varies from dark to pale; propleuron pale to dark; humerus pale; sternopleuron either pale on dorsal three-fourths of surface and black ventrally or brownish black on dorsal one-third, then pale sternopleural stripe and black ventrally. Mesopleuron generally brownish with some pale markings ventrally; pteropleuron dark with pale markings; prosternum whitish, meso- and metasternum black; all other areas of thorax brown to black. Sclerites of thorax dull and cinereous-pollinose; ventral margin of sternopleuron with bristles or bristle-like setae in about three irregular rows; bristles of thorax black. Halter yellow. Wing brownish hyaline, veins brown. Posterior cell open. Coxae and femora yellow; tibiae very pale brown; tarsi brown; apical flexor spot on each femur and apices of tibiae dark. Legs subshining with black hairs. Abdomen chiefly black; terga pale at posterior and lateral margins; seventh and ninth terga pale with few dark markings; sterna blackish except pale lateral margins. Genital structures brownish. Claspers yellowish white, arising from fourth and fifth abdominal sterna and extending slightly basad of apex of tergum II; narrower at base than toward middle, consisting of elevated ridge on posterior margin, terminating in curved digitate process (Fig. 4). Abdomen cinereous pollinose with ninth tergum shining; lateral margins of sterna bearing black setae. Length 6.0–6.6 mm (Holotype 6.2 mm).

FEMALE.—Similar to male in most respects except for the following: bristles and setae on ventral margin of sternopleuron reduced in size and number; front femur usually with dark markings on apical two-fifths. Abdominal sterna brownish with long marginal setae present; ovipositor black and slender tapering towards apex. Length 6.0–7.0 mm including ovipositor. (Allotype 5 mm excluding ovipositor, ovipositor 1.2 mm.)

Holotype male and allotype, DAVIS, YOLO COUNTY, CALIFORNIA, 23 April 1953 (J. C. Hall). (Type and allotype deposited in collection at

University of California at Davis.) Paratypes: three females, same data as holotype; one female, Mt. Diablo, Contra Costa Co., July 1937 (M. A. Cazier); one female, Sespe Cyn., Ventura Co., 10 July 1959 (F. D. Parker); one male, Stanford University, Santa Clara Co., 20 June 1910 (R. W. Doane). Two deposited in the University of California at Davis, two in the M. T. James Entomological Collection at Washington State University, one in the American Museum of Natural History, and one in California Academy of Sciences. Additional specimens were not included in paratype series because of imperfections.

DISTRIBUTION.—This species is known only from California.

VARIATION.—The maxillary palpi vary from pale to dark brown.

DISCUSSION.—Cresson (1938) apparently failed to note the difference in male claspers in specimens of *Micropeza setaventris* Cresson from California. There is a similarity but upon close examination one can see that the claspers of *M. unca* (Fig. 4) are remarkably different from those of *M. setaventris* (Fig. 5). Also, the inner margin of the dark area on the epicephalon is only gently bowed in *M. unca* (Fig. 2) as opposed to being bent anteriorly at a distinct acute angle in *M. setaventris* (Fig. 3). The sternites of the female do not possess strong black marginal setae. For these reasons I am referring those specimens to a new species, *Micropeza unca.*

MICROPEZA (MICROPEZA) ATRA Cresson

(Figs. 6, 7)

Micropeza atra Cresson, 1938, Entomol. News, 49: 74. Type ♀, Flagstaff, Coconino County, Arizona (U. S. Nat. Mus., no. 27059).

The males of this species have not been previously described. I examined four male specimens from Bear Valley, Iron County, Utah, which could not be referred to any species I had studied to date. After checking the range and description of *M. atra* females I am considering the Bear Valley specimens to be the males of *M. atra.*

MALE.—Head entirely black except for whitish to pale yellow on anterior part of epicephalon between eyes, narrow oral margin, face, and bucca. Proboscis with fleshy labella white and haustellum brown; palpus yellowish brown; antenna black; arista black at base, otherwise yellowish, sparsely pubescent. Head shining and polished, except small cinereous postocellar area appearing as silvery reflection; proboscis with black and yellow hairs; occipital region sparsely pubescent; bristles of head black. Thorax wholly black except for whitish conjunctival area of prosternum; prosternal plate off-white to gray; sclerites mostly cinereous pollinose and subshining; area of humeri shining. Halter yellowish white. Wing brownish hyaline, veins brown. Posterior cell open. Front coxa pale yellow to almost white, mid and hind coxae tawny; fore femur largely brownish black, pale basally; mid

and hind femora orange-yellow and dark at apices; tibiae and tarsi blackish. Legs subshining with black hairs. Abdomen completely black except for brown genital structures, and pale margins of claspers and digitate processes at terminal end of claspers. Abdomen chiefly cinereous pollinose and dull, postabdominal area may be subshining. Claspers (Fig. 6) large and broad, easily attaining base of abdomen. Digitate processes long and bent anteriorly. Length 5.5–5.8 mm.

DISTRIBUTION.—This species has been recorded from Arizona, Utah, and New Mexico. Specimens examined: NEW MEXICO: Jemez Mts., Sandoval County, 29 May 1914, 1 female; UTAH: Bear Valley, Iron County, 9 June 1966 (G. F. Knowlton) (three males in Utah State University collection, one male in M. T. James Entomological Collection at Washington State University).

Cresson (1938) speculated that the claspers of the male of *M. atra* would probably be short, of the type of *Micropeza lineata* Van Duzee, but they are large and of the type found in the *Micropeza compar* Cresson complex (Fig. 6). The open first posterior cell, large dark claspers, and the tapering ovipositor which is pointed at the tip (Fig. 7) will differentiate *M. atra* from any other species. Cresson (1938) keys *M. atra* out in two separate places on the basis that an indistinct notopleural stripe is sometimes present. After examining all specimens available I do not think this is a valid observation and therefore conclude that the thorax is black without a pale notopleural stripe.

LITERATURE CITED

CRESSON, E. T., JR. 1938. The Neriidae and Micropezidae of America north of Mexico (Diptera). Trans. Amer. Entomol. Soc., 64: 293–366.

BOOK NOTICE

ECOLOGY, BEHAVIOR, AND ADULT ANATOMY OF THE ALBIDA GROUP OF THE GENUS EPICAUTA (COLEOPTERA, MELOIDAE). By Richard B. Selander and Juan M. Mathieu. University of Illinois Press, Urbana, Chicago and London. Illinois Biological Monographs, No. 41. Pp. [6+] 168, 60 figs., 27 tables. 7 July 1969. $5.95 paperbound.

This is another of the well illustrated, finely written and fully documented papers resulting from Richard Selander's life-long fascination by meloid beetles, and the interest engendered in his students. The title is explanatory, but does not indicate the tremendous amount of field and laboratory work involved, in this case supported in part by grants from the National Science Foundation (Selander) and the Rockefeller Foundation (Mathieu). There is a key to the species on pp. 106–107, followed by a concise Synonymy and Locality Records.—HUGH B. LEECH, *California Academy of Sciences, San Francisco 94118.*